

CLAIMS

1. A method of selectively quantitating cholesterol,
comprising determining the amount of cholesterol in a
5 measuring lipoprotein fraction in a sample in the presence of
a compound having a relatively strong affinity with
non-measuring lipoproteins in the sample, a surfactant
exhibiting a relatively strong action on the measuring
lipoproteins, and a cholesterol determination reagent.

10 2. The method according to claim 1, wherein the compound
having a relatively strong affinity with the non-measuring
lipoproteins in the sample has an affinity with a component
composing a lipoprotein surface layer of those lipoproteins.

15 3. The method according to claim 2, wherein the component
composing a lipoprotein surface layer of the non-measuring
lipoproteins is cholesterol.

20 4. The method according to claim 2, wherein the component
composing a lipoprotein surface layer of the non-measuring
lipoproteins is phospholipid.

25 5. The method according to claim 2, wherein the component
composing a lipoprotein surface layer of the non-measuring
lipoproteins is apoprotein.

6. The method according to claim 1, wherein the compound

having a relatively strong affinity with the non-measuring lipoproteins in the sample is at least one compound selected from the group consisting of saponins, polyenes, cholesterol derivatives, peptides, lectins, and phospholipid derivatives.

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7. The method according to claim 1 or claim 6, wherein the compound having a relatively strong affinity with the non-measuring lipoproteins in the sample is a saponin.

10 8. The method according to claim 7, wherein the saponin is a steroid saponin.

9. The method according to claim 7 or claim 8, wherein the saponin is digitonin or tomatine.

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10. The method according to claim 1 or claim 6, wherein the compound having a relatively strong affinity with the non-measuring lipoproteins in the sample is a polyene.

20 11. The method according to claim 10, wherein the polyene is an antibiotic.

12. The method according to claim 10 or claim 11, wherein the polyene is selected from the group consisting of nystatin, 25 filipin, pimacyllin, pentamycin, trichomycin, fungichromin, perimycin, amphotericin, etoluscomycin, primycin, and candigin.

13. The method according to claim 1 or claim 6, wherein
the compound having a relatively strong affinity with the
non-measuring lipoproteins in the sample is a peptide.

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14. The method according to claim 13, wherein the peptide
is bacitracin, polymyxin, suzucasylin, or gramicidin.

10 15. The method according to claim 1 or claim 6, wherein
the compound having a relatively strong affinity with the
non-measuring lipoproteins in the sample is a lectin.

15 16. The method according to claim 15, wherein the lectin
is concanavalin A, castor lectin, or peanuts lectin.

17. The method according to claim 1, wherein the compound
having a relatively strong affinity with the non-measuring
lipoproteins in the sample is a steroid-binding compound.

20 18. A reagent for quantitative determination of
cholesterols comprising, separately or as a mixture, a compound
having a relatively strong affinity with non-measuring
lipoproteins in the sample, a surfactant exhibiting a
relatively strong action on measuring lipoproteins, and a
25 cholesterol determination reagent.

19. A method of selectively quantitating cholesterols

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comprising preferentially reacting the cholesterols present in non-measuring lipoproteins in a sample in the presence of a compound having a relatively strong affinity with the measuring lipoprotein in the sample, a surfactant exhibiting a relatively strong action on the non-measuring lipoproteins, and a cholesterol determination reagent, and determining the amount of cholesterols in the remaining measuring lipoprotein.

20. The method according to claim 19, wherein the compound having a relatively strong affinity with the measuring lipoproteins in the sample has an affinity with the components composing a lipoprotein surface layer of those lipoproteins.

21. The method according to claim 20, wherein the components composing a lipoprotein surface layer of the measuring lipoproteins are cholesterols.

22. The method according to claim 20, wherein the component composing a lipoprotein surface layer of the measuring lipoproteins is phospholipid.

23. The method according to claim 20, wherein the component composing a lipoprotein surface layer of the measuring lipoproteins is apoprotein.

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24. A reagent for quantitative determination of cholesterols comprising, separately or as a mixture, a compound

having a relatively strong affinity with measuring lipoproteins in the sample, a surfactant exhibiting a relatively strong action on non-measuring lipoproteins, and a cholesterol determination reagent.

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25. A method of determining the concentration of cholesterols in each lipoproteins comprising preferentially reacting the cholesterols present in a second measuring lipoprotein in a sample in the presence of a compound having 10 a relatively strong affinity with a first measuring lipoprotein in the sample, a surfactant exhibiting a relatively stronger action on the second lipoprotein than the first lipoprotein, and a cholesterol determination reagent, determining the amount of cholesterol in the remaining first measuring lipoprotein, and determining the concentration of cholesterols in each 15 lipoprotein from the resultant amount of cholesterol in the remaining first measuring lipoprotein and the total cholesterol concentration.

20 26. The method according to claim 25, wherein the compound having a relatively strong affinity with the first measuring lipoproteins in the sample has an affinity with the components composing a lipoprotein surface layer of those lipoproteins.

25 27. The method according to claim 26, wherein the components composing a lipoprotein surface layer of the first measuring lipoproteins are cholesterols.

28. The method according to claim 26, wherein the component composing a lipoprotein surface layer of the first measuring lipoproteins is phospholipid.

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29. The method according to claim 26, wherein the component composing a lipoprotein surface layer of the first measuring lipoproteins is apoprotein.

10 30. A reagent for quantitative determination of
cholesterols comprising, separately or as a mixture, a compound
having a relatively strong affinity with a first measuring
lipoprotein in the sample, a surfactant exhibiting a stronger
action on a second measuring lipoprotein than on the first
15 measuring lipoprotein, and a cholesterol determination
reagent.

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